

REMARKS

In view of the following remarks, Applicant respectfully requests reconsideration and allowance of the subject application. This amendment is believed to be fully responsive to all issues raised in the Office Action mailed

5 June 24, 2005.

Double Patenting Rejection

Applicants request the double patenting rejection be held in abeyance until either this application or U.S. Patent Application Serial No. 10/086,599

10 issues in accordance with MPEP 804.1.B.

Claim RejectionsRejections Under 35 U.S.C. §102

Claims 1-7 were rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,188,973 to Martinez, et al. (hereinafter, "the '973 patent").

5 Applicants traverse these rejections.

A. Legal Standard

The standard for to support a rejection for anticipation under 35 U.S.C. §102 is one of strict identity. To anticipate a patent claim, a single prior art document must contain all the essential elements of the claim. *Hybritech, Inc. v. Monoclonal Antibodies, Inc.*, 231 USPQ 81, 90 (Fed. Cir. 1986). Every element
10 of the claimed invention must be literally present, arranged as in the claim. *Richardson v. Suzuki Motor Co.*, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). "The identical invention must be shown in as complete detail as is contained in the patent claim." MPEP §2131 (7th Ed. 1998) (citing *Richardson v. Suzuki Motor*
15 *Co.*, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989)). Furthermore, functional language, preambles, and language in "whereby," "thereby," and "adapted to" clauses cannot be disregarded. *Pac-Tec, Inc. v. Amerace Corp.*, 14 USPQ2d 1871 (Fed. Cir. 1990).

The burden of establishing a *prima facie* case of anticipation resides with
20 the Patent and Trademark Office." *Ex parte Skinner*, 2 USPQ2d 1788, 1788-1789 (Bd. Pat. Int. 1986) (holding that examiner failed to establish *prima facie* case of anticipation). The examiner has "the burden of proof . . . to produce the factual basis for its rejection of an application under sections 102 or 103." *In re*

Piasecki, 745 F.2d 1468, 1472, 223 USPQ 785, 788 (Fed. Cir. 1984) (quoting *In re Warner*, 379 F.2d 1011, 1016, 154 USPQ 173, 177 (CCPA 1967)). Only if that burden is met, does the burden of going forward shift to the applicant.

The '973 patent cannot anticipate (or render obvious) independent claim 1 because the '973 patent neither discloses (nor even suggests) limitations explicitly recited in independent claim 1. Claim 1 is directed toward a device for positioning on a shelf of a multi-cabinet data storage cabinet in a mass storage system, and recites limitations directed to:

10 a first interface providing a communication link with a cabinet bus contained in the cabinet
a second interface providing a communication link with a cabinet bus contained in the cabinet; and
15 a processor for creating and at least periodically broadcasting environmental messages comprising status information for the device over the cabinet bus via the second interface and for collecting environmental messages broadcast by other ones of the devices over the cabinet bus and providing at least a portion the collected environmental messages to the control device over the communication link via the first interface.

20 The Action asserts that the '973 patent discloses these limitations, and cites column 6, lines 12-29 and column 10, lines 39-64 to support the rejection.

Applicants disagree. The cited text reads as follows:

25 The GUI 36 obtains component and status information from the computing system 20 through communication links 38. There are a variety of ways in which the GUI can acquire information from the computing system 20. For instance, the PC/server could interface with a cabinet 22 through a fiber channel arbitrated loop (FC-AL), an RS232
30 connection to each shelf, or a SCSI bus connected to the cabinet. Any of these communication protocols/buses can be used by the PC/server to gather the relevant physical and logical information about the components of the cabinet. In FIG. 1, three communication links 38 are shown, for example, including a fiber channel arbitrated loop,
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an RS232 communications link, and a SCSI link. The communication link used in the particular system is a matter of choice dependent upon the communications requirement and compatibility of the various components located within the cabinets 22, as well as other factors such as the desired system throughput and performance.

The operations illustrated in FIG. 7 and described above permit the GUI to "self-discover" the components present in the computing system, their respective attributes, and their operational status. FIG. 8 illustrates the logical operations performed by the GUI to continually monitor the status of the components within the computing system after the initial self-discovery operations of FIG. 7 have been performed.

Referring to FIG. 8, the GUI monitoring operations being at periodic polling operation 122, where the GUI periodically polls each access device for the status of each device in the shelves of the cabinets. In one embodiment of the invention, the access device maintains a summary message of each device within the shelf. This summary message contains a flag indicating whether or not the status of a particular device in the shelf has changed. In this manner, the GUI's periodic polling query can be responded to by the access device with a simple flags, message, thereby reducing the processing overhead imposed upon both the access device and GUI. A single bit flat is maintained for each component which is being monitored. If the component undergoes a change of status, then the flag bit is set indicating to the GUI that the component has new information which the GUI must acquire. When the GUI periodically polls the access devices for status information, the GUI receives a compact summary of the status of all of the components in the computing system. In this manner, the required processing overhead of the GUI for monitoring the status of the components is substantially reduced, as the GUI is not required to continually re-read redundant information which has not changed since the last moment when the GUI pulled the status of the component.

Nothing in this text discloses (or even suggests) the structure of a cabinet bus, as recited in claim 1, or an interface for providing a communication line with a cabinet bus or a processor that collects information broadcast over

the cabinet bus, as recited in claim 1. Therefore, the '973 patent cannot anticipate independent claim 1.

Claims 2-8 depend ultimately from independent claim 1, and are allowable at least by virtue of their dependency.

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Rejections Under 35 U.S.C. §103

Claims 9-30 were rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,938,776 to Sicola (hereinafter, "the '776 patent") in view of the '973 patent. Applicants traverse these rejections and
5 assert that the Office Action fails to establish a *prima facie* case of obviousness.

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference
10 teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) *must teach or suggest all the claim limitations*. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. See, MPEP § 2142 - §
15 2143.03.

The Action asserts that the '776 patent discloses a first reporting group and a second reporting group, as recited in claim 9. Applicants disagree. Contrary to the assertion in the Action, the '776 patent neither discloses nor suggests that the storage devices are divided into respective first and second
20 reporting groups.

The Action concedes that the '776 patent fails to disclose or suggest "a bus communicatively linked to the first reporting group enclosure and to the second reporting group enclosure for carrying the environmental messages,

wherein the environmental messages includes information for identifying whether the environmental message was sent from an enclosure in the first or second reporting group and information for identifying a physical location of the sending enclosure" as recited in claim 9. However, the Action asserts that the '973 patent discloses this limitation, and cites column 3, lines 19-37, column 4, lines 56-65, and column 6, lines 12-29 to support the rejection. Applicants disagree. The cited text reads as follows:

10 The monitoring device is installed in at least one shelf and is electrically connected to the components for communicating with the components. The monitoring device is adapted to communicate with a computer display. The detecting module detects the presence of each component connected in the computing system, while the component attribute determining module determines the component attributes for each of the components detected by the detecting module. The cabinet attribute determining module determines the cabinet attributes for each cabinet, these cabinet attribute include a cabinet identification indicator and a cabinet type. The address assignment module assigns a unique address to each one of the components detected by the detecting module, the unique address corresponding to the physical location of each component in the cabinet. The drawing module represents on the computer display the physical arrangement of the components in the cabinets according to their unique address, their component attribute, and the cabinet attribute.

30 The present invention is a system and method to monitor a computing system consisting of many components. Each component of the larger system is automatically identified as being present, and all of the component's associated attributes are determined. Each component is automatically mapped by a graphical user interface (GUI) to the component's physical location in the system. These features are referred to herein as "self-discovery" of the computing system. The status of each component is also continually monitored.

The GUI 36 obtains component and status information from the computing system 20 through

5 communication links 38. There are a variety of ways
in which the GUI can acquire information from the
computing system 20. For instance, the PC/server
could interface with a cabinet 22 through a fiber
channel arbitrated loop (FC-AL), an RS232
connection to each shelf, or a SCSI bus connected
to the cabinet. Any of these communication
protocols/buses can be used by the PC/server to
gather the relevant physical and logical information
10 about the components of the cabinet. In FIG. 1,
three communication links 38 are shown, for
example, including a fiber channel arbitrated loop,
an RS232 communications link, and a SCSI link.
The communication link used in the particular
system is a matter of choice dependent upon the
communications requirement and compatibility of the
various components located within the cabinets 22,
as well as other factors such as the desired system
throughput and performance.
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Nothing in this text discloses (or even suggests) a bus communicatively
linked to the first reporting group enclosure *and* to the second reporting group
enclosure for carrying the environmental messages, wherein the environmental
messages includes information for identifying whether the environmental
25 message was sent from an enclosure in the first or second reporting group and
information for identifying a physical location of the sending enclosure, as
recited in claim 9.

In sum, the '776 patent fails to disclose or suggest that devices are
divided into first and second reporting groups, as recited in claim 9. Further, the
30 '973 patent fails to disclose or suggest a bus communicatively linked to the first
reporting group enclosure and the second reporting group enclosure. Hence,
the Action fails to establish a *prima facie* case of obviousness of independent
claim 9.

Claims 10-18 depend from independent claim 9, and are allowable at
35 least by virtue of their dependency.

Claim 19 appears to be rejected on the same grounds as claim 9, and citing the same references for support. Hence, Applicants traverse the rejection of claim 19 on the same grounds applied to claim 9.

Claims 20-30 depend from independent claim 19, and are allowable at
5 least by virtue of their dependency.

CONCLUSION

This application is in condition for allowance. Applicants respectfully request reconsideration and prompt issuance of this application. Should any issue remain that prevents immediate issuance of the application, the Examiner
5 is encouraged to contact the undersigned attorney to discuss the unresolved issue.

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